

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

Status of Claims:

No claims are currently being added, cancelled or amended.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 1-9, 11-14 and 16 remain pending in this application.

Claim Rejections – Prior Art:

In the Office Action, claims 1-3, 10, 11 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2001/0041077 to Lehner et al. in view of U.S. Patent No. 6,829,371 to Nichani et al.; claims 4-6, 9, 12 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lehner in view of Nichani et al. and further in view of U.S. Patent Publication No. 2003/0076224 to Braune; claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lehner in view of Nichani et al. and Braune and further in view of U.S. Patent No. 7,200,246 to Cofer; and claims 8 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lehner in view of Nichani et al. and Braune and further in view of U.S. Patent No. 6,504,470 to Puchek et al. These rejections are traversed with respect to the presently pending claims under rejection, for at least the reasons given below.

In its rejection of claims 1 and 2 over the combination of Lehner and Braune and Nichani, the Office Action asserts that Figure 10, column 22 and column 23, lines 1-30 of Nichani describes a process for monitoring only the mobile objects whose number is a predetermined value and which are selected in increasing order of a distance from a dangerous source when the mobile objects whose number is more than the predetermined value intrude into a monitoring target region. Applicants respectfully disagree. Namely, column 10 of Nichani describes parameters that are used to compute an optimal dimension for a protection zone in which an overhead camera is placed to protect a horizontal area beneath it. Column 22 of Nichani is concerned with positioning the camera such that intruders can be detected of all sizes, when they enter the protection zone. Accordingly, as

described in column 23, lines 25-30 of Nichani, a viewing angle, perimeter placement and/or system response are determined to suit a particular region to be protected. As is clear from the above, Figure 10, column 23, and column 23, lines 1-30 of Nichani are not concerned at all with selecting a plurality of mobile objects in increasing order of a distance from a dangerous source when the mobile objects are in number more than a predetermined value in a monitoring target region. Rather, Nichani is concerned with the precise camera angle and protection zone size in order to detect a mobile object of a desired size range.

Also, the inclusion of three intruders 44a, 44b, and 44c in Figure 10 of Nichani is only meant to show that Nichani's system may not be able to detect an intruder 44c that is well within the protection zone 38 and it is not able to detect an intruder 44a that has not yet entered the protection zone 38. Rather, only the intruder 44b that is currently passing into the protection zone 38 can be detected by Nichani's system. Thus, Figure 10 and columns 22 and 23 of Nichani say nothing about monitoring only the mobile objects whose number is a predetermined value and which are selected in increasing order of a distance from a dangerous source, as recited in claims 1 and 2. Note that intruder 44c as shown in Figure 10 of Nichani is closest to an object to be protected, but intruder 44c may not be detectable by Nichani's intrusion detection system because intruder 44c is too far away from the beam output by camera 40. This is in clear contrast to the features recited in claims 1 and 2, and actually teaches away from those claims.

Accordingly, since none of the other cited art of record makes up for the above-mentioned deficiencies of Nichani, presently pending independent claims 1 and 2 are patentable over the cited art of record.

Furthermore, in its rejection of claim 9, the Office Action asserts that paragraphs 0050 to 0053 of Lerner discloses a process for monitoring only the mobile objects existing in the warning region when the total number of the mobile objects existing in the warning region and the total number of mobile objects existing in the warning target region is more than a predetermined value. Applicants respectfully disagree. Namely, paragraph 0050 of Lerner describes a protection zone 7 within a detection region 6, in which upper tools 3 and lower tools 4 are located in the protection zone 7. Paragraph 0051 of Lerner discloses a warning zone 8 in addition to the protection zone 7. Paragraph 0052 of Lerner discloses an evaluation unit that determines whether an endangered object is located in the warning zone 8, and if so,

a warning signal is output. Paragraph 0053 of Lerner discloses that an endangered object may correspond to the fingers or hands of an operator of the upper tools 3 and lower tools 4.

As is clear from the discussion above, paragraphs 0050 to 0053 of Lerner are concerned with outputting a warning signal when a single endangered object is located in a warning zone, and thus this portion of Lerner does not teach or suggest monitoring only the mobile objects existing in the warning region when the total number of the mobile objects existing in the warning region and the total number of mobile objects existing in the warning target region is more than a predetermined value that is greater than one.

Also, please note that only the mobile objects existing in the warning region are monitored, whereby any mobile objects existing in the warning target region (whereby claim 9 recites that there must be at least one mobile object in the mobile target region) are ignored. Such features are not taught or suggested by Lerner, which monitors all targets in a warning region and a warning target region no matter how many mobile objects exist or do not exist in those regions, or by any of the other cited art of record.

Therefore, dependent claim 9 is patentable for these additional reasons, beyond the reasons given above for its base claim.

Still further, with respect to dependent claims 6 and 12, those claims recite “continuously generating the warning until the mobile object which intruded into the warning region existing in the vicinity of the dangerous source moves out of the warning region, while for holding up the warning when at least one part of the mobile object is lost in sight in the warning region and has not been determined to have moved out of the warning region.” Paragraphs 0052 and 0053 of Lerner describe that a warning indicator is output when an endangered object is located in a warning zone, and an operator removes his/her hands (the “endangered object”) from the warning zone when the warning indicator is output, and whereby the warning indicator is then stopped. This is clearly different from the features recited in claims 6 and 12, in which a warning is held up when “at least one part of the mobile object is lost in sight in the warning region and has not been determined to have moved out of the warning region.” Lerner does not seem to contemplate a “lost in sight” situation, as recited in claims 6 and 12. Accordingly, dependent claims 6 and 12 are patentable for these additional reasons, beyond the reasons given above for their respective base claim.

With respect to dependent claim 16, that claim recites:

monitoring the intruding object performed in the information processing apparatus comprises a process for allowing an audible and/or visual output of the warning which was held up when at least one part of the mobile object is lost in sight in the warning region, only after a manual resetting operation has been made.

The Office Action asserts that column 12, lines 7-34 of Nichani teaches the features recited in claim 16, but Applicants respectfully disagree. Namely, column 12, lines 7-34 of Nichani describe that video images are captured and stored in a memory device, whereby results data is then generated by a results processor 30, and whereby an alarm may then be output. There is no mention in column 2, lines 7-34 of Nichani concerning holding up a warning only after a manual resetting operation has been made (there appears to be no reference to a manual resetting operation in this portion of Nichani).

Therefore, dependent claim 16 is patentable for these additional reasons, beyond the reasons given above for its base claim.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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